

# Understanding the impact of COVID-19 on early career molecular bioscientists

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The COVID-19 pandemic has affected scientific research across the world, emphasizing old entrenched problems as well as bringing new challenges and even some opportunities. In May 2020, the Biochemical Society conducted a survey of 469 researchers, across all career stages, to assess the impact of the pandemic on the molecular bioscience community. The survey results indicated that researchers early in their careers are the most adversely affected by the ongoing circumstances.

The survey was conducted at the time of many regional and national lockdowns, both in the UK and worldwide. Consequently, the majority of respondents (76%) were unable to access their laboratories and perform experimental work when it was taken. Respondents assessed the immediate effects of the pandemic and foresaw its longer-term impacts on themselves and their research. The survey identified two major areas of concern for early career researchers (ECRs), which included (i) career progression and (ii) securing research funding in the era of COVID-19. These concerns were expressed not only by the ECRs themselves, but also by nearly half of the established scientists (47%), who recognized the difficult situation their junior colleagues would now face. One of the senior academic respondents stated: “I am particularly concerned about senior postdocs who are planning to write independent fellowships in the next year (...). We could lose a LOT of excellent researchers”.

The COVID-related lockdowns and other social distancing measures were anticipated to cause a decrease or delay to research output. Such a reduction in productivity disproportionately affects ECRs (typically employed on fixed-term contracts), who rely on new experimental data and rapid publishing for career progression and securing research funding. A 6-month delay in research is a long time for ECRs and can have life-changing consequences, especially for those at a transition point in their career. This is exemplified by 9% of early career survey respondents, who indicated that they are considering moving away from research and gave many comments such as the following: “Due to delays on experiments, my future publications will be delayed. My plan to submit a manuscript in 2020 is probably unrealistic as things stand. This year publication

was paramount to apply for fellowships, therefore I will have to very likely postpone career progressions”. Furthermore, job insecurity associated with fixed-term contract employment of ECRs is currently exacerbated by the prevalent recruitment freeze and cuts in research funding, particularly from the charity sector. The widespread cancellations of face-to-face scientific meetings and conferences in response to the pandemic have dramatically restricted the opportunities for ECRs to network, establish new contacts and collaborations and to gain feedback on their work – all of which are essential for gaining recognition in the community, and hence career progression.

In July 2020, the Early Career Advisory Panel discussed the results of the survey, assessing the impact of the COVID-19 pandemic, specifically on ECRs, and analysing how the Biochemical Society and Portland Press can best support them. In addition to the key findings of the survey, the Panel recognized three factors that are likely to impact on ECRs: (i) childcare responsibilities, (ii) consequences of the furlough scheme and (iii) dependence of ECRs on the decisions made by their Principal Investigators/line managers. These points were not reflected in the survey, most likely due to its timing early in the pandemic and data limitations (furloughed researchers or those with caring responsibilities were less likely to respond). With regard to the support that the Society and Portland Press can offer to ECRs at this time, the Panel has formulated an action plan, which aims to address the key areas identified by the survey. A new series of webinars, addressed specifically at ECRs, will be incorporated into the Society’s webinar portfolio. The aim behind these webinars is twofold: (i) to give the ECRs a forum to present their research and (ii) to provide career advice and training in a variety of

topics. We will also create a dedicated online resource about external research funding opportunities available to postgraduate students and ECRs. Finally, we will continue providing career support through our Twitter chats as well as interviews and the 'Day in the life of...' series in *The Biochemist*.

Clearly, the Biochemical Society cannot solve the enormous problems brought upon ECRs by the COVID-19 pandemic; we can, however, help our student and ECR communities face these challenges. To ensure that the Society remains aware of all the concerns and needs of its membership during the COVID-19 pandemic, as well as the wider molecular

bioscience community, a follow-up survey has been scheduled for later this year. Given the initial indications that ECRs are disproportionately affected, it is vital that we hear from researchers at the early stages of their careers, so that we can tailor our activities, in all areas of the Society workstreams, towards mitigating the dramatic impact of this crisis. As the Early Career Trustee of the Biochemical Society, I urge all, junior and senior members of the bioscience community, to respond to the upcoming survey and share their views on the impact of COVID-19 on students and ECRs. Ultimately, their future defines the future of our community.